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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/806,914	03/23/2004	Masahiro Ikeda	0941.70144	3878
7590 05/18/2005		EXAMINER		
Patrick G. Burns, Esq. GREER, BURNS & CRAIN, LTD. Suite 2500 300 South Wacker Dr. Chicago, IL 60606			NGUYEN, THANH NHAN P	
			ART UNIT	PAPER NUMBER
			2871	
			DATE MAILED: 05/18/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
	10/806,914	IKEDA ET AL.				
Office Action Summary	Examiner	Art Unit				
	(Nancy) Thanh-Nhan P. Nguyen	2871				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period w Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	ely filed s will be considered timely. the mailing date of this communication. O (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on	·					
_	action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4) ☐ Claim(s) 1-8 is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-8 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or						
Application Papers						
9) The specification is objected to by the Examiner.						
10)⊠ The drawing(s) filed on <u>23 March 2004</u> is/are: a)⊠ accepted or b)⊡ objected to by the Examiner.						
Applicant may not request that any objection to the		• •				
Replacement drawing sheet(s) including the correction 11) The oath or declaration is objected to by the Ex						
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)						
1) Notice of References Cited (PTO-892)	4) Interview Summary					
<ul> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)</li> <li>Paper No(s)/Mail Date 3/23/2004.</li> </ul>	Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	atent Application (PTO-152)				

## **DETAILED ACTION**

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimada et al U.S. Patent No. 5,910,829.

Referring to claim 1, Shimada et al discloses a liquid crystal display (LCD) panel comprising a display area (107) for displaying images, and a frame area (106) that surrounds the display area, wherein the frame area comprises: a transparent substrate (130); a plurality of color filters (R, G, B) provided side-by-side on the transparent substrate, each of the color filters filtering one of at least two predetermined colors; a first electrode (120) that counters the color filters; a second electrode (not shown) that counters the first electrode, and liquid crystal (LC) that is inserted between the first electrode and the second electrode, [see fig. 15; and col. 13, lines 6, 25].

Referring to claim 2, Shimada et al discloses each of the color filters is one of red, green, and blue colors, [see fig. 15].

Referring to claim 5, Shimada et al discloses the thickness of the color filters in the frame area is equal to thickness of a plurality of color filters in the display area, [see fig. 15].

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al in view of Ono et al U.S. Patent Application Publication No. 2005/0083471.

Referring to claim 3, Shimada et al lacks disclosure of the liquid crystal is normally black liquid crystal.

Ono et al discloses by adopting a so-called normally black liquid crystal, which can generate a black display in a state in which an electric field is not applied to the liquid crystal, it is possible to strengthen the function of the conductive layer as a black matrix, [see par. 0204]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use normally black liquid crystal for the benefit of being possible to strengthen the function of the conductive layer (such as electrodes) as a black matrix.

Application/Control Number: 10/806,914

Art Unit: 2871

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al in view of Tashiro et al U.S. Patent Application Publication No. 2002/0196393.

Referring to claim 4, Shimada et al lacks disclosure of the first electrode and the second electrode in frame area are connected to a common voltage.

Tashiro discloses the first electrode (58) and the second electrode (60) are connected to a common voltage (56), [see fig. 42b], for controlling the liquid crystal molecules in the area between electrodes 58 and 60 (frame area) separately/differently from the controlling the liquid crystal molecules in the area between electrodes 8 and 14 (display area), [observing from figs. 42a-42b]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have the first electrode and the second electrode in frame area are connected to a common voltage for controlling the liquid crystal molecules in the frame area separately/differently from the controlling the liquid crystal molecules in the display area.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al in view of Makino U.S. Patent No. 6,259,505.

Referring to claim 6, Shimada et al lacks disclosure of a transparent protective coat is provided between the color filters and the first electrode.

It was very well known that the main purposes of using transparent protective coat provided between the color filters and the electrodes are for flattening of the color filters surface and being as electrical insulation between the color filters and the Art Unit: 2871

electrode formed thereon, and it is evidenced by Makino, [see col. 1, lines 32-36]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have a transparent protective coat is provided between the color filters and the first electrode for the benefit of flattening of the color filters surface and being as electrical insulation between the color filters and the electrode formed thereon.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al in view of Miyazaki et al U.S. Patent No. 5,978,061.

Referring to claim 7, Shimada et al lacks disclosure of a spacer member in frame area for regulating the thickness of the LCD panel.

Miyazaki et al discloses spacer(s) member in frame area (off-display area), [see fig. 6], and as the language regarding the use as spacer for maintaining the space between two substrates in LCD panel is an intended used limitation, and therefore does not patentably distinguish the invention.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al in view of Matsuoka et al U.S. Patent No. 6,348,958.

Referring to claim 8, Shimada et al lacks disclosure of an area occupancy ratio of the color filters in one color is different from an area occupancy ratio of the color filters in another color. Application/Control Number: 10/806,914

Art Unit: 2871

Matsuoka et al discloses an area occupancy ratio of the color filters in one color

is different from an area occupancy ratio of the color filters in another color, [fig. 1], for

the benefit of being possible to omit the step of manufacturing a black mask so as to

reduce the cost; and consequently, a color filter for an optical display device can be

provided with an excellent appearance on a display, [see abstract]. Therefore, at the

time the invention was made, it would have been obvious to a person of ordinary skill in

the art to have an area occupancy ratio of the color filters in one color is different from

an area occupancy ratio of the color filters in another color for the benefit of being

possible to omit the step of manufacturing a black mask so as to reduce the cost; and

consequently, a color filter for an optical display device can be provided with an

excellent appearance on a display.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Shimada et al U.S. Patent No. 5,910,829 discloses the frame area of LCD panel

comprising a plurality of color filters provided side-by-side on the transparent substrate,

and the thickness of the color filters in the frame area is equal to thickness of a plurality

of color filters in the display area.

Ono et al U.S. Patent Application Publication No. 2005/0083471 discloses the

liquid crystal is normally black liquid crystal.

Application/Control Number: 10/806,914

Art Unit: 2871

Tashiro et al U.S. Patent Application Publication No. 2002/0196393 discloses the first electrode and the second electrode in frame area are connected to a common voltage.

Makino U.S. Patent No. 6,259,505 discloses a transparent protective coat is provided between the color filters and the first electrode.

Miyazaki et al U.S. Patent No. 5,978,061 discloses a spacer member in frame area for regulating the thickness of the LCD panel.

Matsuoka et al U.S. Patent No. 6,348,958 discloses an area occupancy ratio of the color filters in one color is different from an area occupancy ratio of the color filters in another color.

Page 7

Application/Control Number: 10/806,914 Page 8

Art Unit: 2871

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P. Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on M-F/9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 13, 2005

TN

TARIFUR R. CHOWDHURY
PRIMARY EXAMINER